Neurosurgery Rotation

Neurosurgery Rotation Information (including Rotation Learning Outcomes, Instructional Objectives, Preceptor Evaluation of Student Form, and Rotation-Specific Curriculum Integration Table)

Instructor of Record for Neurosurgery Rotation:
Mandy German PA-C
Cell: (616) 460-7080
Office: (616) 331-5988
Office Location: CHS 226
Email: germanm@gvsu.edu

Neurosurgery Clinical Rotation Topics
Eyes, Ears, Nose, and Throat
Eye disorders
       Neuro-ophthalmologic disorders: Nystagmus, Optic neuritis, Papilledema
       Vision abnormalities: Amaurosis fugax
Ear disorders
       Inner ear: Acoustic neuroma, Vertigo

Neurologic System
Closed head injuries: Concussion, Post-concussion syndrome, Traumatic brain injury
Cranial nerve palsies
Encephalopathic disorders
Headaches: Cluster headache, Migraine, Tension headache
Infectious disorders: Encephalitis, Meningitis
Movement disorders: Essential tremor, Huntington disease, Parkinson disease, Tourette disorder
Neoplasms: Benign, Malignant
Neurocognitive disorders: Delirium, Major/mild neurocognitive disorders
Neuromuscular disorders: Cerebral palsy, Multiple sclerosis, Myasthenia gravis
Peripheral nerve disorders: Carpal tunnel syndrome, Complex regional pain syndrome, Guillain-Barré syndrome, Peripheral neuropathy
Seizure disorders: Focal seizure, Generalized seizures, Status epilepticus
Vascular disorders: Arteriovenous malformation, Cerebral aneurysm, Intracranial hemorrhage, Stroke, Syncope, Transient ischemic attack

Musculoskeletal System

Degenerative diseases: Osteoarthritis

Infectious diseases: Osteomyelitis, Septic arthritis

Neoplasms: Benign, Malignant

Spinal disorders: Ankylosing spondylitis, Herniated nucleus pulposus, Kyphosis, Scoliosis, Spinal stenosis, Spondylolistheses, Spondylolysis, Sprain/strain, Torticollis, Trauma

Thoracic outlet syndrome

Neurosurgery Clinical and Technical Skills

Neurosurgery Skills	
Clinical Skills	
	Obtain pre-procedural/surgical consent (RLO3)
	Elicit a detailed and accurate history for a patient seeking neurosurgery pre-operative care (RLO2)
	Elicit a detailed and accurate history for a patient seeking neurosurgery post-operative care (RLO2)
	Elicit a detailed and accurate history for a neurosurgery patinent in inpatient care (RLO2, Clinical and Technical Skills Checklist)
	Perform an appropriate physical examination for a neurosurgery patient seeking pre-operative care (RLO2)
	Perform an appropriate physical examination for a neurosurgery patient seeking post-operative care (RLO2)
	Perform an appropriate physical examination for a neurosurgery patient seeking inpatient care (RLO2, Clinical and Technical Skills Checklist)
	Document neurosurgery pre-operative evaluations (RLO4)
	Document a neurosurgery post-operative evaluations (RLO4)
	Document procedures (RLO4)
	Document neurosurgery inpatient evaluations (RLO4, Clinical and Technical Skills Checklist)
	Document neurosurgery discharge instructions (RLO4, Clinical and Technical Skills)
	Select appropriate medications (RLO3)
	Select appropriate dose for medications (RLO3)
Technical Skills	
	Demonstrate proper surgical scrub technique (Clinical and Technical Skills Checklist)

Neurosurgery Rotation Learning Outcomes and Instructional Objectives

Rotation Learning Outcomes	Instructional Objectives
Students will demonstrate medical knowledge of the pathophysiology, etiology, epidemiology, patient presentation, differential diagnosis, diagnostic work-up, patient management, health promotion, and disease prevention for common conditions (listed in Neurosurgery Clinical Rotation Topics above) for patients seeking pre-operative, intra-operative, and post-operative care.	
	Neurosurgery instructional objective: Explain the pathophysiology of the clinical presentations of conditions requiring pre-operative, intra-operative, and post-operative management listed in the Neurosurgery Clinical Rotation Topics (above). (MK-PLO3)
	Neurosurgery instructional objective: Describe the etiology and epidemiology of the clinical conditions requiring pre-operative, intra-operative, and post-operative management listed in the Neurosurgery Clinical Rotation Topics (above). (MK-PLO3)
	Neurosurgery instructional objective: Identify the acute and chronic patient presentation of conditions requiring pre-operative, intra-operative, and post-operative management listed in the Neurosurgery Clinical Rotation Topics (above). (MK-PLO3)
	Neurosurgery instructional objective: Differentiate how disease processes of conditions requiring pre-operative, intra-operative, and post-operative management listed in the Neurosurgery Clinical Rotation Topics (above) present. (MK-PLO3)

	Neurosurgery instructional objective: Explain the appropriate diagnostic workup of patients receiving pre-operative, intra-operative, and post-operative care for the clinical conditions listed in the Neurosurgery Clinical Rotation Topics (above). (MK-PLO3)
	Neurosurgery instructional objective: Formulate a differential diagnosis for the patient presentation of conditions requiring pre-operative, intra-operative, and post-operative management listed in the Neurosurgery Clinical Rotation Topics (above). (MK-PLO3)
	Neurosurgery instructional objective: Describe the presentation, diagnosis, and management (medical and surgical) of conditions listed in the Neurosurgery Clinical Rotation Topics (above) that require pre-operative, intra-operative, and postoperative care. (MK-PLO2)
	Neurosurgery instructional objective: Describe the presentation, diagnosis, and management of conditions listed in the Neurosurgery Clinical Rotation Topics (above) that require inpatient management. (MK-PLO2)
	Neurosurgery instructional objective: Compare and contrast the risks and benefits of diagnostic studies and treatment plans for conditions listed in the Neurosurgery Clinical Rotation Topics (above) requiring pre-operative, intra-operative, postoperative care. (MK-PLO3)
	Neurosurgery instructional objective: Summarize the indications and contraindications of procedures commonly used in pre-operative, intra-operative, and post-operative treatment of conditions listed in the Neurosurgery Clinical Rotation Topics (above). (MK PLO-2)
	Neurosurgery instructional objective: Compare and contrast the risks and benefits of procedures indicated for the pre-operative, intra-operative, and post-operative management of conditions listed in the Neurosurgery Clinical Rotation Topics (above). (MK PLO-3)
	Neurosurgery instructional objective: Outline the appropriate patient management of the clinical conditions requiring pre-operative, intra-operative, and post-operative care listed in the Neurosurgery Clinical Rotation Topics (above). (MK-PLO3)

	Neurosurgery instructional objective: Identify the common medication problems specific to pre-operative, intra-operative, and post-operative care, including polypharmacy, potential toxic interactions of drugs, compliance issues, and the complexity of new medication prescribing. (MK-PLO3)
	Neurosurgery instructional objective: Recognize when it is appropriate to obtain informed consent for patients seeking pre-operative, intra-operative, and post-operative care.
	Neurosurgery instructional objective: Discuss medications commonly used in the treatment of patients receiving pre-operative, intra-operative, and post-operative care for conditions listed in the Neurosurgery Clinical Rotation Topics (above), including indications, contraindications, possible drug interactions, mechanism of action, most common side effects, need for laboratory monitoring, and appropriate dosage. (MK PLO-3)
	Neurosurgery instructional objective: Interpret and apply healthcare guidelines for patients receiving pre-operative, intra-operative, and post-operative care (MK PLO-3)
	Neurosurgery instructional objective: Select appropriate prescription medication(s) and dosing for the treatment of patients seeking care for pre-operative, intra-operative, and post-operative conditions as listed in the Neurosurgery Clinical Rotation Topics (above). (MK PLO-3)
	Neurosurgery instructional objective: Actively participate in the management of-patients receiving pre-operative, intra-operative, and post-operative care. (MK- PLO3)
	Neurosurgery instructional objective: Differentiate between the types of shock and discuss approaches for their management. (MK-PLO2)
	Neurosurgery instructional objective: Describe the surgical procedure used to treat the clinical conditions listed in the Neurosurgery Clinical Rotation Topics (above) requiring surgical management. (MK-PLO2)
	Neurosurgery instructional objective: Summarize fluid and electrolyte management in the surgical patient. (MK PLO-3)
	Neurosurgery instructional objective: Understand the role and responsibilities of a surgical assistant during intra-operative care. (PC-PLO5)

Students will elicit a detailed and accurate patient history, perform an appropriate physical examination (including but not limited to a pre-procedure/surgical consent, pre-operative H&P, post-operative evaluation, and inpatient evaluation), appropriately use and interpret diagnostic testing and laboratory studies, and formulate differential diagnoses and assessment plans for symptoms/conditions (listed in Neurosurgery Clinical Rotation Topics above) commonly encountered in patients seeking in an (a) inpatient setting and (b) operating room setting (including pre-operative, intra-operative, and post-operative care).	
	Neurosurgery instructional objective: Demonstrate an age-appropriate problem-focused history and physical exam-for conditions requiring surgical management. (PC PLO-1, PC-PLO-2)
	Neurosurgery instructional objective: Demonstrate an age-appropriate problem-focused pre-operative, post-operative, and inpatient history and physical examination. (PC-PLO-1, PC-PLO2)
	Neurosurgery instructional objective: Select and interpret appropriate diagnostic and laboratory studies related to conditions listed in the Neurosurgery Clinical Rotation Topics (above) in an (a) inpatient setting and (b) operating room setting (including pre-operative, intra-operative, and post-operative care). (PC-PLO3)
	Neurosurgery instructional objective: Manage pre-operative, postoperative, and inpatient care of patients with conditions listed in the Surgery Clinical Rotation Topics (above). (PC PLO-4)

	Neurosurgery instructional objective: Formulate an appropriate differential diagnosis for surgical conditions based on history, physical examination, diagnostic data, and clinical reasoning in an (a) inpatient setting and (b) operating room setting (including pre-operative, intra-operative, and post-operative care). (PC-PLO4)
	Neurosurgery instructional objective: Develop an appropriate assessment, management care plan, and disposition of patients, given all pertinent medical data, including history, physical exam, laboratory, and diagnostic data in an (a) inpatient setting and (b) operating room setting (including pre-operative, intra-operative, and post-operative care). (PC-PLO4)
	Neurosurgery instructional objective: Actively participate in the management of patients with conditions listed in the Neurosurgery Clinical Rotation Topics (above) in an (a) inpatient setting and (b) operating room setting (including pre-operative, intra-operative, and post-operative care). (PC-PLO4)
Students will perform the following technical skill: proper surgical scrub technique.	
	Neurosurgery instructional objective: Identify the indications and purpose of a surgical scrub in preventing surgical site contamination. (PC-PLO5)
	Neurosurgery instructional objective: Identify the indications and purpose of a surgical scrub in preventing surgical site contamination. (PC-PLO5)
	Neurosurgery instructional objective: Demonstrate proper preparation for a surgical scrub, including removal of jewelry, inspection of hands/forearms, and appropriate PPE selection. (PC-PLO5)
	Neurosurgery instructional objective: Correctly perform the steps of a standardized surgical scrub technique (anatomic or timed), including hand and forearm cleansing, sequence, and contact time. (PC-PLO5)
	Neurosurgery instructional objective: Maintain aseptic technique throughout the scrub, ensuring hands and arms

	remain above the elbows and away from non-sterile surfaces. (PC-PLO5)
	Neurosurgery instructional objective: Dry hands and arms using sterile technique and proceed to gowning/gloving without contamination. (PC-PLO5)
	Neurosurgery instructional objective: Recognize and appropriately respond to contamination during the scrub (e.g., restarting the scrub or repeating steps as required by institutional policy). (PC-PLO5)
Students will document information clearly and appropriately in neurosurgery, including (a) pre-operative evaluations, (b) procedures, (c) post-operative evaluations, (d) discharge instructions, and (e) inpatient evaluations.	
	Neurosurgery instructional objective: Document a surgical note for pre-operative, procedure, and post-operative note. (ICS-PLO2)
	Neurosurgery instructional objective: Document an inpatient note. (ICS-PLO2)
	Neurosurgery instructional objective: Document patient discharge instructions. (ICS-PLO2)
	Neurosurgery instructional objective: Document information clearly and accurately at an appropriate level for patients, colleagues, and teachers. (ICS-PLO2)
Students will listen empathetically and effectively, communicate clearly, utilize shared decision-making, and provide patient education and counseling for patients seeking pre-operative, intra-operative, and post-operative care.	

	Neurosurgery medicine instructional objective: Utilize open-ended questions, active listening, and empathetic communication to elicit patient preferences, values, goals, and concerns while providing space for patients to fully articulate their thoughts without interruption for patients seeking pre-operative, intra-operative, and post-operative care. (ICS-PLO1)
	Neurosurgery medicine instructional objective: Communicate complex medical information clearly and comprehensively, using plain language and avoiding medical jargon, while tailoring the content and delivery to the patient's level of understanding and health literacy for patients seeking pre-operative, intra-operative, and post-operative care. (ICS-PLO3)
	Neurosurgery medicine instructional objective: Deliver clear, concise, and well-organized oral case presentations using a structured format, ensuring the inclusion of pertinent patient information to effectively communicate with preceptors and the healthcare team, fostering collaboration and continuity of care. (ICS-PLO3)
	Neurosurgery medicine instructional objective: Identify and address communication barriers with diverse patient populations and adapt communication style and information context to ensure understanding, effective interaction, and culturally sensitive care. (ICS PLO-3)
	Neurosurgery medicine instructional objective: Collaborate with the patient and family to identify realistic goals, develop a shared understanding of diagnoses and treatment options, and explain the risks and benefits of diagnostic studies and treatments, while demonstrating empathetic listening to clarify misconceptions and address concerns or fears, for patients seeking pre-operative, intra-operative, and post-operative care. (ICS PLO-5)
	Neurosurgery instructional objective: Deliver age-appropriate patient-centered education and counseling to patients, including health promotion, disease prevention, and evidence-based written materials tailored to the patient's needs and health literacy, seeking pre-operative, intra-operative, and post-operative care. (ICS-PLO5)

	Neurosurgery instructional objective: Demonstrate ability to provide appropriate discharge instructions to a patient. (ICS PLO-3)
	Neurosurgery instructional objective: Provide patient-centered counseling that addresses emotional, psychological, and social concerns (ICS-PLO5)
	Neurosurgery instructional objective: Assess patient understanding of medical information and treatment plans and address any gaps in comprehension (ICS-PLO3)
Students will facilitate difficult health care conversations regarding pre-operative, intra-operative, and post-operative care.	
	Neurosurgery instructional objective: Establish rapport and trust with patients and their family members by demonstrating empathy, active listening, and respect for their emotions, perspectives, and concerns while maintaining professionalism and objectivity. (ICS PLO-4)
	Neurosurgery instructional objective: Create a supportive environment conducive to open and honest dialogue, ensuring that the patient and their family feel comfortable expressing their thoughts, emotions, and preferences. (ICS PLO-4)
	Neurosurgery instructional objective: Demonstrate sensitivity and cultural competence in addressing sensitive topics, such as end-of-life care, post-operative complications, or difficult treatment decisions, while respecting diverse perspectives and values. (ICS PLO-4)
	Neurosurgery instructional objective: Provide emotional support and connect patients and their families with appropriate resources to help them cope with difficult emotions and navigate the healthcare system effectively. (ICS PLO-4)
Students will demonstrate compassion, integrity, respect, patient responsiveness, accountability, and teamwork while providing pre-operative,	

intra-operative, and post-operative care.	
	Neurosurgery instructional objective: Demonstrate empathy, understanding, and compassion, sensitivity to the emotional, social, developmental, cultural, and diverse backgrounds of patients and their families, including age, gender, and disabilities while providing pre-operative, intra-operative, and post-operative care. (P-PLO1)
	Neurosurgery instructional objective: Respect patient confidentiality and privacy, ensuring that sensitive information is handled appropriately and securely while providing pre-operative, intra-operative, and post-operative care. (P-PLO1)
	Neurosurgery instructional objective: Use inclusive language and cultural sensitivity while providing pre-operative, intra-operative, and post-operative care and interacting with patients and their families to foster trust and respect. (P-PLO1)
	Neurosurgery instructional objective: Exhibit professionalism in interactions with patients, families, and healthcare team members, including maintaining appropriate dress, punctual attendance, and a professional attitude in all clinical settings. (P-PLO1)
	Neurosurgery instructional objective: Prioritize patient care over personal comfort or preferences, demonstrating a willingness to adjust schedules or extend work hours to accommodate patient needs. (P-PLO2)
	Neurosurgery instructional objective: Demonstrate flexibility, attentiveness, and responsiveness in addressing patient concerns and unexpected changes. (P-PLO2)
	Neurosurgery instructional objective: Take accountability for actions, decisions, and the quality of care provided, ensuring continuous evaluation and improvement. (P-PLO3)
	Neurosurgery instructional objective: Evaluate and integrate community resources to support patient care for patients requiring surgical management. (P PLO-3)
	Neurosurgery instructional objective: Demonstrate motivation and desire to learn. (P PLO-3)

	Neurosurgery instructional objective: Demonstrate knowledge of the legal and regulatory requirements of the role of a physician assistant. (P-PLO4)
	Neurosurgery instructional objective: Exhibit integrity by adhering to ethical standards, acting with honesty, and maintaining professional accountability in all interactions and decisions. (P-PLO1)
Students will (a) seek, implement, and accept feedback, (b) reflect on performance and develop plans for self-improvement, and (c) locate, appraise, and integrate evidence-based studies related to pre-operative, intra-operative, and post-operative care.	
	Neurosurgery instructional objective: Proactively seek feedback from their preceptor on clinical performance, communication skills, and professional behavior, demonstrating openness to constructive criticism and willingness to apply it to improve. (PBL PI-PLO1)
	Neurosurgery instructional objective: Develop action plans based on feedback including specific goals and timelines for implementation. (PBL PI-PLO1)
	Neurosurgery instructional objective: Recognize personal and professional limitations, and locate assistance from preceptors, colleagues, and reference materials to address areas needing improvement. (PBL PI-PLO1)
	Neurosurgery instructional objective: Monitor progress towards goals over time, adjusting action plans as necessary based on ongoing reflection and feedback. (PBL PI PLO-2)
	Neurosurgery instructional objective: Develop the ability to learn from practice. (PBL PI PLO-2)
	Neurosurgery instructional objective: Demonstrate lifelong learning by interpreting independent readings, assessing medical evidence, and applying decision-making tools to provide evidence-based patient care concerning surgical care. (PBL PI-PLO3)

	Neurosurgery instructional objective: Recognize the importance of lifelong learning in the surgical field. (PBL PI PLO-3)
	Neurosurgery instructional objective: Assess and effectively communicate medical evidence to patients, colleagues, and healthcare teams to support shared decision-making and patient care. (PBL PI PLO-3)
	Neurosurgery instructional objective: Utilize medical information technology to access and appraise online medical resources, enhance personal education, support clinical decision-making, and educate patients. (PBL PI PLO-3)
In inpatient and operating room settings, students will (a) promote a safe environment, (b) demonstrate knowledge of quality improvement methodologies and metrics, (c) recognize the unique role of PAs and other health professions, (d) work effectively with other health professionals to provide collaborative, patient-centered care, (e) incorporate considerations of cost awareness and funding, and (g) describe basic health payment systems and practice models.	
	Neurosurgery medicine instructional objective: Operate under the rules of HIPAA to preserve patient confidentiality in an inpatient and operating room setting. (SBP PLO-1)
	Neurosurgery instructional objective: Practice according to policy and procedures set forth by the health care facility. (SBP PLO-1)
	Neurosurgery instructional objective: Identify barriers and challenges to implementing quality improvement initiatives in an inpatient and operating room setting and propose strategies to overcome them. (SBP PLO-2)
	Neurosurgery instructional objective: Discuss the appropriate use of controlled substances and statewide tracking systems

	to ensure ethical and legal patient care in inpatient and operating room settings. (SBP PLO-2)
	Neurosurgery instructional objective: Encourage a culture of safety and collaboration within the healthcare team by promoting open communication, error reporting, mutual respect, and teamwork while providing patient-centered care in an inpatient and operating room setting. (SBP-PLO3)
	Neurosurgery instructional objective: Identify the steps of the referral process for patients and the roles of other healthcare professionals in the participation of your patient's care in inpatient and operating room settings. (SBP-PLO3)
	Neurosurgery instructional objective: Employ a professional relationship with the preceptors and other healthcare team members in inpatient and operating room settings. (SBP-PLO4)
	Neurosurgery instructional objective: Efficiently manage patient flow and patient scheduling to optimize access to care and minimize wait times for patients seeking care in inpatient and operating room settings. (SBP-PLO5)
	Neurosurgery instructional objective: Communicate effectively with administrative staff, medical assistants, and other members of the healthcare team to coordinate patient care activities and ensure smooth health care operations in inpatient and operating room settings. (SBP-PLO4, SBP-PLO5)
	Neurosurgery instructional objective: Evaluate cost-effective healthcare resources that do not compromise the quality of care for patients in inpatient and operating room settings. (SBP PLO-6)
	Neurosurgery instructional objective: Discuss treatment options for patient care in an unbiased manner, considering both clinical effectiveness and cost implications and involving patients in shared decision-making in inpatient and operating room settings. (SBP PLO-6)
	Neurosurgery instructional objective: Educate patients about potential out-of-pocket expenses, insurance coverage limitations, and available resources for financial assistance or cost savings programs. (SBP PLO-6)

	Neurosurgery instructional objective: Describe common practice models in inpatient and operating room settings. (SBP PLO-6)
	Neurosurgery instructional objective: Demonstrate an understanding of the roles and responsibilities of PAs and other healthcare professionals in inpatient and operating room settings. (SBP PLO-6)
	Neurosurgery instructional objective: Choose appropriate billing codes for payment services under the direct supervision of the preceptor in inpatient and operating room settings. (SBP-PLO7)
	Neurosurgery instructional objective: Identify funding sources and payment systems, including eligible patient populations for Medicaid and Medicare in inpatient and operating room settings. (SBP-PLO7)
	Neurosurgery instructional objective: Communicate effectively with surgical team members to ensure smooth coordination and optimal patient care during the procedure. (SBP-PLO4, SBP-PLO5)

Neurosurgery Rotation Curriculum Integration Table

Rotation Learning Outcome	Assessment Method (Benchmark Requirements)	PAS Program Goal	PAS Program Learning Outcome (ARC-PA)/Student Learning Outcomes (GVSU)
Students will demonstrate medical knowledge of the pathophysiology, etiology, epidemiology, patient presentation, differential diagnosis, diagnostic work-up, patient management, health promotion, and disease prevention for common conditions (listed in Neurosurgery Clinical Rotation Topics above) for patients seeking pre-operative, intra-operative, and post-operative care.	Preceptor Evaluation (80% average score on Medical Knowledge competency section)	Medical Knowledge and Competence in Patient Care	MK #2 MK#3
Students will elicit a detailed and accurate patient history, perform an appropriate physical examination (including but not limited to a pre-procedure/surgical consent, pre-operative H&P, post-operative evaluation, and inpatient evaluation), appropriately use and interpret diagnostic testing and laboratory studies, and formulate	Preceptor Evaluation (80% average score on Patient Care competency section)	Medical Knowledge and Competence in Patient Care	PC #1 PC #2 PC #3 PC #4

differential diagnoses and assessment plans for symptoms/conditions (listed in Neurosurgery Clinical Rotation Topics above) commonly encountered in patients seeking in an (a) inpatient setting and (b) operating room setting (including pre-operative, intra-operative, and post-operative care).			
Students will perform the following technical skill: proper surgical scrub technique.	Preceptor Evaluation (80% average score on Patient Care competency section)	Medical Knowledge and Competence in Patient Care	PC #5
Students will document information clearly and appropriately in neurosurgery, including (a) pre-operative evaluations, (b) procedures, (c) post-operative evaluations, (d) discharge instructions, and (e) inpatient evaluations.	Preceptor Evaluation (80% average score on Interpersonal and Communication Skills competency section)	Medical Knowledge and Patient Care	ICS#2
Students will listen empathetically and effectively, communicate clearly, utilize shared decision-making, and provide patient education and counseling for patients seeking pre-operative,	Preceptor Evaluation (80% average score on Interpersonal and Communication Skills competency section)	Medical Knowledge and Patient Care	ICS #1
		Collaborative Practice	ICS #3
			ICS #5

intra-operative, and post-operative care.			
Students will facilitate difficult health care conversations regarding pre-operative, intra-operative, and post-operative care.	Preceptor Evaluation (80% average score on Interpersonal and Communication Skills competency section)	Collaborative Practice	ICS #4
Students will demonstrate compassion, integrity, respect, patient responsiveness, accountability, and teamwork while providing pre-operative, intra-operative, and post-operative care.	Preceptor Evaluation (80% average score on Professionalism competency section)	Professionalism	P #1
			P #2
			P #3
Students will (a) seek, implement, and accept feedback, (b) reflect on performance and develop plans for self-improvement, and (c) locate, appraise, and integrate evidence-based studies related to pre-operative, intra-operative, and post-operative care.	Preceptor Evaluation (80% average score on Practice-Based Learning and Proficiency Improvement competency section)	Lifelong Learning	PBLPI #1
			PBLPI #2
			PBLPI #3

In operating room settings, students will (a) promote a safe environment, (b) demonstrate knowledge of quality improvement methodologies and metrics, (c) recognize the unique role of PAs and other health professions, (d) work effectively with other health professionals to provide collaborative, patient-centered care, (e) incorporate considerations of cost awareness and funding, and (g) describe basic health payment systems and practice models.	Preceptor Evaluation (80% average score on Systems-Based Practice competency section)	Medical Knowledge and Patient Care	SBP #1
			SBP #6
		Lifelong Learning	SBP #2
		Collaborative Practice	SBP #3
			SBP #4
			SBP #5
			SBP #7

Neurosurgery Preceptor Evaluation of Student

Neurosurgery Preceptor Evaluation of the Student						
What is your group and/or site name (i.e., Corewell Health Greenville Hospital Multispecialty Cent–r - Oak St, Family Medicine)						
Medical Knowledge: This section evaluates the student's ability to demonstrate medical knowledge, clinical reasoning, and problem-solving ability of sufficient breadth and depth to practice medicine as an entry-level physician assistant.						
	60%	70%	80%	90%	100%	N/A
	(Failing)	(D+/ C-)	(C+/ B)	(B+/ A-)	(A)	
Student demonstrated medical knowledge in pathophysiology, etiology, and epidemiology for patients seeking care for common conditions encountered in neurosurgery, including (MK#2, 3):						
Pre-operative care						
Intra-operative care						
Post-operative care						
Student demonstrated medical knowledge of patient presentations for patients seeking care for common conditions encountered in neurosurgery, including (MK#2,3):						
Pre-operative care						
Intra-operative care						
Post-operative care						
Student demonstrated medical knowledge of differential diagnosis for patients seeking care for common conditions encountered in neurosurgery, including (MK#2,3):						
Pre-operative care						
Intra-operative care						
Post-operative care						
Student demonstrated medical knowledge of the diagnostic work-up for patients seeking care for common conditions encountered in neurosurgery, including (MK#2,3):						
Pre-operative care						

Intra-operative care						
Post-operative care						
Student demonstrated medical knowledge of patient management strategies for patients seeking care for common conditions encountered in neurosurgery, including (MK#2,3):						
Pre-operative care						
Intra-operative care						
Post-operative care						
Student demonstrated medical knowledge of health promotion and disease prevention for patients seeking care for common conditions encountered in neurosurgery, including (MK#2, 3):						
Pre-operative care						
Intra-operative care						
Post-operative care						
Additional Comments:						

Patient Care: This section evaluates the student's ability to provide person-centered care that includes patient- and setting-specific assessment, evaluation, management, and health promotion.

	60%	70%	80%	90%	100%	N/A
	(Failing)	(D+/ C-)	(C+/ B)	(B+/ A-)	(A)	
Student elicited a detailed and accurate history for patients seeking care in an inpatient and operating room setting, including (PC#1):						
Inpatient care						
Pre-operative care						
Post-operative care						
Student performed an appropriate physical examination for patients seeking care in an inpatient and operating room setting, including (PC#1):						
Inpatient care						
Pre-operative care						

Post-operative care							
Student demonstrated knowledge of the appropriate use and interpretation of diagnostic testing for patients seeking care in an inpatient and operating room setting, including (PC#3):							
Inpatient care							
Pre-operative care							
Intra-operative care							
Post-operative care							
Student demonstrated knowledge of the appropriate use and interpretation of laboratory studies for patients seeking care in an inpatient and operating room setting, including (PC#3):							
Inpatient care							
Pre-operative care							
Intra-operative care							
Post-operative care							
Student organized information from the interview, diagnostic testing, and physical examination to formulate differential diagnoses for patients seeking care in an inpatient and operating room setting, including (PC#4):							
Inpatient care							
Pre-operative care							
Intra-operative care							
Post-operative care							
Student organized information from the interview, diagnostic testing, and physical examination to formulate assessments for symptoms/conditions commonly encountered in patients seeking care in an inpatient and operating room setting, including (PC#4):							
Inpatient care							
Pre-operative care							
Intra-operative care							
Post-operative care							

Student organized information from the interview, diagnostic testing, and physical examination to formulate management plans for symptoms/conditions commonly encountered in patients seeking care in an inpatient and operating room setting, including (PC#4):						
Inpatient care						
Pre-operative care						
Intra-operative care						
Post-operative care						
Student demonstrated basic clinical and technical skills common to neurosurgery including (PC#5):						
Demonstrating proper surgical scrub technique (PC-PLO5)						
Prescribe medications for conditions requiring pre-operative care. (PC-PLO4)						
Prescribe medications for conditions requiring intra-operative care. (PC-PLO4)						
Prescribe medications for conditions requiring post-operative care. (PC-PLO4)						
Prescribe medications for conditions requiring inpatient care. (PC-PLO4)						
Additional Comments:						

Interpersonal and Communication Skills: This section evaluates the student's ability to demonstrate verbal and non-verbal communication skills needed to have respectful, compassionate, and effective conversations with patients, patients' families, and health professionals to exchange information and make medical decisions.

	60%	70%	80%	90%	100%	N/A
	(Failing)	(D+/ C-)	(C+/ B)	(B+/ A-)	(A)	
Student documented information clearly and appropriately for the following encounters (ICS#2):						
Pre-operative note						

Procedure note						
Post-operative note						
Inpatient note						
Discharge instructions						
Student listened empathetically and effectively to patients seeking surgical care, including (ICS#1):						
Pre-operative care						
Intra-operative care						
Post-operative care						
Student communicated information clearly to patients seeking surgical care, including (ICS#3):						
Pre-operative care						
Intra-operative care						
Post-operative care						
Student utilized shared decision making for patients seeking surgical care, including (ICS#5):						
Pre-operative care						
Intra-operative care						
Post-operative care						
Student provided patient education and counseling for patients seeking surgical care, including (ICS#5):						
Pre-operative care						
Intra-operative care						
Post-operative care						
Student facilitated difficult health care conversations for patients seeking surgical care, including (ICS#4):						
Pre-operative care						
Intra-operative care						

Post-operative care						

Additional Comments:	

Professionalism: This section evaluates the student's ability to demonstrate commitment to carrying out professional responsibilities and adhering to ethical principles and practices while providing pre-operative, intra-operative, and post-operative care.						
	60%	70%	80%	90%	100%	N/A
	(Failing)	(D+/ C-)	(C+/ B)	(B+/ A-)	(A)	

Student demonstrated compassion, integrity, and respect to patients seeking care in neurosurgery, including (P#1):						
Pre-operative care						
Intra-operative care						
Post-operative care						

Student demonstrated patient responsiveness while providing care to patients seeking care in neurosurgery, including (P#2):						
Pre-operative care						
Intra-operative care						
Post-operative care						

Student showed accountability while providing care to patients seeking care in neurosurgery, including (P#3):						
Pre-operative care						
Intra-operative care						
Post-operative care						

Additional Comments:	

Practice-Based Learning and Proficiency Improvement: This section evaluates the student's ability to acquire, appraise, and apply evidence-based medicine to patient care and accurately assess and improve clinical performance based on constant self-evaluation and lifelong learning.						
	60%	70%	80%	90%	100%	N/A

	(Failing)	(D+/ C-)	(C+/ B)	(B+/ A-)	(A)	
Student sought, implemented, and accepted feedback related to neurosurgery, including (PBLPI#1)						
Pre-operative care						
Intra-operative care						
Post-operative care						
Student reflected on their performance to identify strengths and deficiencies in their knowledge and expertise and develop a plan for self-improvement related to neurosurgery, including (PBLPI#2):						
Pre-operative care						
Intra-operative care						
Post-operative care						
Student located, appraised, and integrated evidence-based studies related to neurosurgery, including (PBLPI#3):						
Pre-operative care						
Intra-operative care						
Post-operative care						
Additional Comments:						

Systems-Based Practice: This section evaluates the student's ability to engage with other healthcare professionals in a manner that optimizes care within the context of the larger healthcare system.

	60%	70%	80%	90%	100%	N/A
	(Failing)	(D+/ C-)	(C+/ B)	(B+/ A-)	(A)	
Student promoted a safe environment for patients seeking care in the following settings: (SBP#1)						
Inpatient setting						
Operating room setting						

Student demonstrated knowledge of quality improvement methodologies and metrics for the following care settings: (SBP#2)						
Inpatient setting						
Operating room setting						
Student recognized the unique roles of PAs and those of other healthcare professions in the following settings: (SBP#3)						
Inpatient setting						
Operating room setting						
Student worked effectively with other health professionals to provide collaborative, patient-centered care in the following settings: (SBP#4)						
Inpatient setting						
Operating room setting						
Student worked effectively in the following settings: (SBP#5)						
Inpatient setting						
Operating room setting						
Student incorporated considerations of cost awareness and funding sources into patients seeking care in the following settings: (SBP#6)						
Inpatient setting						
Operating room setting						
Student described basic health payment systems and practice models for the following settings (SBP#7)						
Inpatient setting						
Operating room setting						
Additional Comments:						
Did the student have any absences during the rotation?						
	Yes					

	No					
If yes, please indicate dates and reason for absence:						
Please write a short note commenting on this student's particular strengths.						
Please write a short note commenting on this student's particular areas for improvement.						
Was this evaluation discussed with the student?						
	Yes					
	No					
Additional comments						
Preceptor Signature:						